

## **REMARKS**

Claims 1-12 are in the case and presented for consideration.

The specification and claims have been amended for clarity.

The Examiner objected to the specification under 35 U.S.C. § 112, first paragraph, for containing the terms “deadhead” or “mini-deadhead”. See page 2 of the December 6, 2005 Office Action.

In response, Applicant respectfully traverses the Examiner’s above ground of rejection. It is submitted that a patent applicant is entitled to use terms which he or she feels best describe his or her invention. See, e.g., MPEP § 2111.01(III) (stating that “[a]n applicant is entitled to be his or her own lexicographer...”). It is also submitted that the terms objected to by the Examiner are adequately and clearly described in the specification (see, e.g., page 1, line 25 to page 2, line 3, of the specification) and are well understood by one of ordinary skill in the art (see, e.g., U.S. Patent 4,161,647 to Carbonnel for examples of “dead heads” in the prior art). Reconsideration and withdrawal of this ground of objection is respectfully requested.

With respect to page 11 of the specification, the specification as amended does not contain the section 112, first paragraph, issue raised by the Examiner, and is therefore believed to render this objection moot.

The Examiner rejected claims 1-12 under 35 U.S.C. § 112, second paragraph, as being indefinite. See page 2 of the December 6, 2005 Office Action.

In response, Applicant respectfully traverses the Examiner’s above ground of rejection. To advance the prosecution of this application, but without conceding the correctness of the Examiner’s rejection, Applicant has amended the claims to include the

suggestions made by the Examiner. The claims as amended do not contain the issues raised by the Examiner, and are believed to render this ground of rejection moot.

With respect to claim 1, the term “insulating or refractory material” are adequately described in the specification (see, e.g., page 5, lines 3-6, of the specification) and therefore there is a foundation for the use of these terms in the claims. Reconsideration and withdrawal of this ground of rejection is respectfully requested.

The Examiner rejected claims 1-12 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent 6,197,850 to Fernandez, et al. or U.S. Patent 6,360,808 to Twardowska, et al. and further in view of WO 00/73236 to Skerdi ('236 Skerdi). See page 3 of the December 6, 2005 Office Action. Since the specification of WO 00/73236 ('236 Skerdi) is published in German, reference will also be made to the corresponding U.S. National Stage application, which issued as U.S. Patent 6,972,059 to Skerdi ('059 Skerdi), for ease of explanation and understanding of Applicant's arguments, as set forth below.

Applicant respectfully traverses the Examiner's above ground of rejection. To establish a *prima facie* case of obviousness, the initial burden is on the Examiner to show that there is suggestion or motivation in the reference for modifying or combining the teachings of the reference.

Applicant's claimed invention is directed to, e.g., a process of making a **fluoride-free** exothermic sleeve. See, e.g., claim 1. While Examiner acknowledged that the exothermic composition disclosed in Fernandez, et al. and Twardowska, et al. contains fluoride, it is alleged that Skerdi teaches a fluoride free composition. See page 3 of the December 6, 2005 Office Action. In response, Applicant respectfully submits that **Skerdi disparages or discourages the use of fluoride-free exothermic feeder masses** (see, e.g., '059 Skerdi, col. 1, lines 58-64), and suggests the use of an exothermic feeder mass that, while

being labeled as “essentially free” (see, e.g., abstract of ‘059 Skerdi) or “practically free” (see, e.g., abstract, ‘236 Skerdi) of fluoride-containing flux agents, are ***expressly admitted to have a fluoride content***. See, e.g., ‘059 Skerdi, col. 2, lines 27-29, and ‘236 Skerdi, page 4, second paragraph (stating that “[e]ssentially free’ is defined as having a fluoride content...”). A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. See, e.g., MPEP § 2141.02 (VI). Therefore, the disclosure of Skerdi, when taken as a whole, would have led a skilled person away from a ***fluoride-free*** exothermic composition because Skerdi expressly taught the use of exothermic feeder masses that ***contain some amounts of fluoride*** to overcome the shortcomings of fluoride-free exothermic feeder masses.

Since none of the references cited by the Examiner (i.e., Fernandez, et al., Twardowska, et al. and Skerdi) teach, disclose or suggest a sleeve made of fluoride-free exothermic composition, the claimed invention cannot be obvious. A claim is obvious only if the applied references teach or suggest all the claim limitations.

The references also do not teach, disclose or suggest, among other patentable features, the step of forming a double chamfer on an opening of the exothermic sleeve in order to, for example, facilitate the subsequent removal of the deadhead from a cast piece. See, e.g., claim 1. For the reasons discussed above, reconsideration and withdrawal of this ground of rejection is respectfully requested.

Accordingly, the application and claims are believed to be in condition for allowance, and favorable action is respectfully requested. No new matter has been added.

If any issues remain, the Examiner is respectfully invited to contact the undersigned at the number below to advance the application to allowance.

Respectfully submitted,

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